



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

ADULT EDUCATION IN THE ARMY

Z. T. EGARDNER
Camp Grant, Illinois

Section 27 of The National Defence Act of June 3, 1916, provides that "in addition to military training, soldiers, while in the active service, shall hereafter be given the opportunity to study and receive instruction upon educational lines of such a character as to increase their military efficiency and enable them to return to civil life better equipped for industrial, commercial, and general business occupations." The General Staff and its advisory board agreed from the very beginning that increased military, industrial, and business efficiency presupposes at least a minimum of manipulative skill in the three R's, and some training in the fundamentals of citizenship. Since the great majority of the enlisted men were found to be deficient in both, it was decided that the vocational training of the army students should be supplemented by a course in general education.

To meet effectively the many peculiar problems which were certain to arise in attempting to carry out such a program, a staff of specialists was charged with the task of developing means and methods of instruction more fully adapted to the needs of the army student than those in general use. Camp Grant, Illinois, was chosen as the experimental station, and the schools of Camp Grant served as a laboratory in which the scheme was tried out and tested in daily classroom work during two school terms. The entire program of general education was put into operation in the Division School of Camp Grant during the school year 1920-21. In order to obtain as reasonably exact and objective a judgment as possible of the practicability of the entire scheme, objective progress tests were developed and applied during the school year, and full records were kept.

It should be explained that this report concerns itself with the second course in general education only, and not with the

recruit educational center, the school for illiterates, or for men not in command of a reading and writing knowledge of English.

THE STUDENT BODY

Although more than twenty-two hundred men applied for admission at the opening of the term, only about thirteen hundred could be accommodated in the vocational schools of Camp Grant, and not more than approximately two-thirds of that number could attend the second course in general education. Due to transfers of regiments to other army posts and to the fact that a considerable number of men in attendance at the schools received their discharge from the army before the end of the school year, complete records of only 661 men are at hand. According to their own statements, 76 per cent of these 661 men joined the army on account of the educational opportunities which the schools promised. Sixty-one per cent enlisted for one year of service, and 39 per cent for three years, a good proportion of the latter being "old-timers," men who had seen service before. Sixty-two per cent of the 661 men were native-born of native-born parents, 22 per cent were native-born of foreign-born parents, and only 16 per cent of the total were foreign-born of foreign-born parents.

The educational training of the 661 men prior to their enlistment, their mental age at the time of enrolment in the army schools, and the actual classification of the men during the first week of school, expressed in terms of public-school grades, are shown in Table I.

The figures relative to the intellectual maturity of the students and those which have reference to their actual command of the fundamentals of a general education at the time of their enrolment in the army schools were secured by objective standardized tests, either modified or specially developed for that purpose by the department of testing and grading of the army schools. These figures are of special interest since they show the mental caliber of the men whom the army receives for training. Consequently, and quite apart from every other consideration, they are a convincing argument for, and justification of, the army schools. Moreover, they also indicate how little of even the very fundamentals of a

general education a considerable number of pupils retain. Although 51 per cent of the 661 men had attended the eighth grade, and some even college, less than 12 per cent of all the men in question found themselves equal to the average eighth-grade pupil, while 43 per cent could not compete with the average sixth-grade pupil of our public schools.

TABLE I

PERCENTAGE DISTRIBUTION OF 661 MEN ON THE BASIS OF PREVIOUS SCHOOL TRAINING, MENTAL AGE, AND CLASSIFICATION AT TIME OF ENROLMENT IN THE ARMY SCHOOLS AT CAMP GRANT

SCHOOL TRAINING PRIOR TO ENLISTMENT		MENTAL AGE AT TIME OF ENROLMENT		CLASSIFICATION AT TIME OF ENROLMENT	
Grade	Percentage	Number of Years	Percentage	Grade	Percentage
College.....	0.8	15 and over	6.4	VIII or above	11.7
High school.....	18.2	14-15.....	11.0	VII.....	20.4
VIII.....	31.9	13-14.....	18.8	VI.....	24.3
VII.....	17.0	12-13.....	22.8	V.....	16.1
VI.....	14.6	11-12.....	15.1	IV.....	18.3
V.....	7.5	10-11.....	17.2	III or below..	9.1
IV.....	5.4	Less than 9	8.6		
III.....	1.9				
II.....	0.4				
I.....	0.3				
None.....	1.9				

Their deficiencies in the fundamentals of an elementary education, however, cannot be attributed altogether to the years that have elapsed since their attendance at school. Fifty and six-tenths per cent of these men were less than twenty years of age; only 7.9 per cent were more than twenty-five years of age; and the ages of 41.5 per cent ranged from twenty to twenty-five years at the time of their enrolment. Such comparative studies are bound to deepen the conviction that the growing demand for fundamental reforms in our educational systems is not all due to mere fault-finding.

On the occupational side, 36 per cent of the 661 men were skilled or clerical workers, 19 per cent factory hands, and 28 per cent farmers; 17 per cent classified themselves as common laborers or attended school until they enlisted in the army. Responsibility for the educational deficiencies of the group cannot, therefore, be

placed at the door of the shiftless and unskilled laborer. Neither is the low average in school work due to the presence in large numbers of ignorant foreigners, because only 16 per cent of the students were of foreign birth.

AIMS AND METHODS

In a pamphlet entitled *The Educational System in the United States Army* (October, 1920), the War Department outlines its policy with regard to army education as follows:

Education in the army is designed to serve a twofold purpose. (1) To train technicians and mechanics to meet the army's needs, and to raise the soldier's general intelligence in order to increase his military efficiency. (2) To fit the soldier for a definite occupation upon his return to civil life. Army training will, however, do more than fit a man into industry. It will bring to practical industrial training the culture that one can reasonably combine with such training. It will make him a better citizen, a broader-minded man in every way [p. 2].

The emphasis, of course, was placed upon the training of specialists for the army, and properly so. Members of the General Staff have repeatedly pointed out that almost 48 per cent of the personnel of a modern fighting force must consist of trained specialists and technicians in order to secure the necessary mobility and efficiency. Since only 18 per cent of the required number during the world-war could be secured through the draft, one can readily see how necessary it is that a considerable number of enlisted men receive the required training before an emergency arises. Three hours per day, five days per week, and six months per year were consequently set aside at Camp Grant for the vocational training of the soldier-student.

Real professional proficiency in any calling, however, is practically impossible when the majority of men available for training find themselves unable to compete successfully with the average sixth-grade pupil in the mastery of the three R's. To correct this deficiency, two hours per day were set aside to develop the required mathematical skill of the student and to improve his command of the English language.

To develop arrested mentality was the principal aim and purpose of the basic course in citizenship. All materials and

methods employed were determined by a staff of specialists with that object in mind and tested day after day in classroom work during two school terms. Effort and attention were concentrated upon that as the main object, because experience in the army and in civil life has demonstrated that an alert, plastic, and systematic mind, stimulated by its environment and directed by a creative impulse, will of its own accord search for such additional information and acquire such additional skill as circumstances demand. Dull and unorganized minds, on the other hand, not only lack the necessary interest and ambition to supplement their fund of knowledge, but scarcely ever know what to do with such knowledge and skill as they possess.

The course of instruction offered students and instructors an opportunity to study the origin and evolution of democratic ideals and institutions as well as the extension of the sphere of their influence from the Near East to the Far West. The subject-matter of the course is divided into one hundred and twenty problems, one problem for each day of instruction, including periodical reviews. The course proceeds in spiral form from simple to more and more complex and modern cultural levels. Each cultural level is studied in its social, economic, political, historical, and geographical aspects. None of the various aspects, however, was ever presented in the abstract or as a problem of a single branch of the social sciences. In other words, the basic course in citizenship is a synthetic course, placing due emphasis upon the functional side of human experience, upon the unity and interdependence of all phenomena of the social organism. Interwoven with and traceable throughout the entire scheme are recurrent themes around which the daily topics are grouped, representing such problems as the relation between production and consumption, industrial development and democracy, education and democracy, public opinion and democracy, natural resources and national progress, the necessity for and function of social control, evolution and revolution, and social interdependence and social responsibility. This arrangement made the course elastic and had the advantage of frequent repetition. Consequently the instructor was not forced to be exhaustive or final in his treatment of the daily topics.

In instruction, both the problem method and the question method were employed. The daily problem, provided for by the problem or case method, was introduced to the class in the form of a perplexity in order to arouse the student's interest and challenge his attention. The question method, on the other hand, demanded continuous discussion and co-operation between students and instructor. By referring from the problem at hand to similar perplexities of the present day, the students were invited to draw from their own varied experiences elements for comparison, which in turn helped them to organize their past experience for future use. Thus they gradually discovered that a great deal of supposedly "dead memory" had real functional value. Throughout the entire course processes rather than isolated and detached incidents of human experience were emphasized. Such methods and principles, if persistently put into operation, are bound to change the mental make-up of the student. They are bound to develop reflective thinking, the spirit of critical inquiry, at least a fair analytical ability, and some power of proper classification. Moreover, whenever possible, the material in use during the English hour was intimately related to the problem of the course in citizenship and reinforced the discussion of the day. It is self-evident that, in consequence of such procedure, a great deal of informational knowledge was acquired by the students.

The departure from conventional methods of administration and classification of the student body was even more marked. Intelligence levels, and not conventional school grades, served as a basis for classification. These intelligence levels were determined through a series of intelligence and mechanical-interest tests in use in the army during the war and revised by the department of testing and grading of the army schools. Irrespective of previous educational experience, the men were placed in eight homogeneous groups. Through the medium of progress tests, the results of instruction were measured objectively. As soon as it was found that a man had outgrown his group, or that he could not keep up with his group, the necessary adjustment was made. Thus homogeneous groups were maintained throughout the school year. Such frequent adjustment was possible because, as far as the basic

course in citizenship was concerned, the topics for discussion and the methods employed were identically the same for all eight groups. The course proved to be elastic enough to permit the adjustment which each level of intelligence required.

Of course, the entire scheme raised problems and difficulties of its own, chief among them being the difficulty of getting an efficient instructing staff. Instructors of more than average ability are necessary to make success a certainty. It is necessary that the instructor be thoroughly familiar with the principal problems and movements of the day and the important literature of almost all of the social sciences; he must also be a dialectician.

In order to preserve a certain uniformity of instruction, from the standpoint of emphasis as well as interpretation, daily conferences were held in which one of the instructors presented the next day's problem adapted to the intelligence level and to the peculiar needs of the group. This presentation was then discussed and supplemented by additional references and suggestions. A group of essays, for which the various problems under discussion furnished the topics, served as a check and stimulus for both instructors and students.

RESULTS

In spite of all of the obstacles which had to be overcome, the results evidently justified the efforts. The tests used to measure the progress of the student body were modifications and adaptations of such standard tests as Woody's arithmetic scale, Monroe's algebra test, Charter's language and grammar tests, and Buckingham's Extension of the Ayres Spelling Scale. Some tests had to be developed especially for the purpose since no standard tests were available. Wherever practical, the results obtained have been translated into the equivalent public-school grades for the sake of better comparison.

Table II compares the status of the students relative to their spelling ability, the extent of their vocabulary, their correct use of the English language and grammar, and the range of their mathematical skill at the opening of the school with that at the close of the school year.

Even a casual glance at the figures of Table II cannot fail to reveal a decided shift in the ability of the students by the end of the school term, in spite of a great deal of interference with their regular attendance on account of military duties. This becomes even more obvious when we compare the percentage of men with less than sixth-grade ability and those with more than eighth-grade ability in the four disciplines mentioned. This comparison is shown in Tables III and IV, which should be read as follows: at the beginning of the school 66.3 per cent of the men enrolled were

TABLE II

PERCENTAGE DISTRIBUTION OF 661 MEN ON THE BASIS OF SCHOOL STANDING IN THE SEVERAL SUBJECTS AT THE BEGINNING AND AT THE END OF THE GENERAL EDUCATION COURSE

PUBLIC-SCHOOL GRADE	SPELLING		VOCABULARY		LANGUAGE		MATHEMATICS	
	First Test	Last Test	First Test	Last Test	First Test	Last Test	First Test	Last Test
II.....	15.4	1.8	1.8	0.4	7.0	.....	10.5	.....
III.....	10.6	4.9	7.1	0.9	4.8	1.3	12.6	1.5
IV.....	11.8	4.5	7.9	3.1	7.7	3.7	21.5	4.7
V.....	11.4	9.0	12.0	2.7	14.6	6.7	21.6	14.0
VI.....	17.1	14.6	13.8	7.1	20.2	8.9	28.4	21.2
VII.....	12.0	14.4	27.5	10.8	23.8	14.1	4.5	20.2
VIII.....	14.3	18.2	15.1	21.8	17.3	24.0	0.5	20.1
IX.....	6.1	14.4	12.7	16.1	3.8	20.6	.....	10.2
X.....	1.2	10.1	1.8	17.2	0.5	11.4	.....	8.0
XI.....	.....	6.4	.....	19.1	.....	7.5	.....	.....
XII.....	.....	1.3	.....	0.7	.....	1.5	.....	.....

rated as of less than sixth-grade ability in spelling; 7.3 per cent were rated as of better than eighth-grade ability in this subject.

The number of public-school grades by which the men improved their ability in the specified fundamentals during their attendance at the army school is indicated in Figure 1. Of course, it was to be expected that a certain percentage of men would make little or no progress. The number of those who made no progress, however, is very small, there being only 9.4 per cent for the total group in spelling, 3.4 per cent of the total group in vocabulary, 2.4 per cent of the total group in the correct use of the English language and grammar, and 7.9 per cent of the total group in mathematics. For the group as a whole, marked improvement is shown. For instance,

23.4 per cent of the total number of men enrolled have one and one-half school grades' progress to their credit in the correct use of language and grammar; 18.5 per cent show the same amount of improvement in spelling, 17.3 per cent the same in vocabulary, while 19.8 per cent in language, 13.2 per cent in spelling, and 19.2 per cent in vocabulary advanced two school grades. It should be noted that the testing and grading were done by representatives of the testing and grading department, and not by the instructors.

TABLE III
PERCENTAGE DISTRIBUTION OF MEN OF LESS THAN SIXTH-GRADE
ABILITY

Subject	At the Beginning of the School	At the Close of the School
Spelling.....	66.3	34.8
Vocabulary.....	42.5	14.2
Language.....	54.3	20.6
Mathematics.....	94.6	41.4

TABLE IV
PERCENTAGE DISTRIBUTION OF MEN BETTER THAN
EIGHTH-GRADE ABILITY

Subject	At the Beginning of the School	At the Close of the School
Spelling.....	7.3	32.2
Vocabulary.....	14.5	53.0
Language.....	4.3	41.0
Mathematics.....	.....	18.2

It was of importance to know whether the daily class discussions contributed in some definite manner to the informational fund of the student and whether his power to grasp and retain a number of ideas in consequence of a discussion had been improved. In order to obtain the desired information, essays were assigned by the director of the school, each topic representing a definite group of class problems which had been discussed. Among the topics were "Democracy in Its Relation to Industrial Development," "Industrial Progress in Its Relation to Education," "The Development

and Function of Public Opinion," "Democracy and Education," and "Who Is an American?" The topics were discussed in the classroom and the essays outlined the day after the assignment had been given to the instructing staff. The essays were written the following day without any further comment and were graded according to the number of ideas which they contained and the form

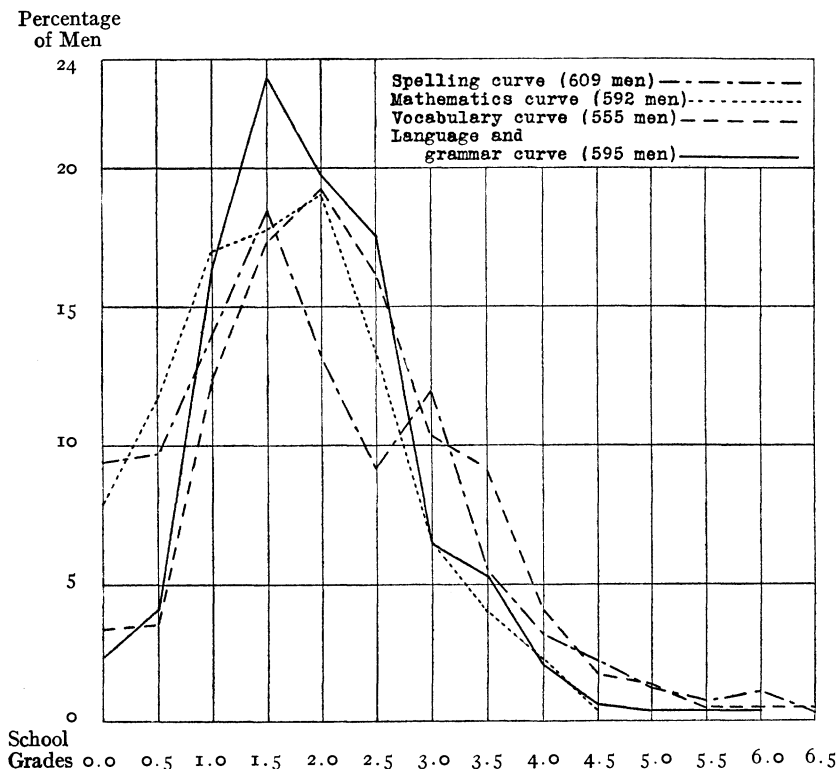


FIG. 1.—Percentage distribution, on the basis of the number of school grades advanced, of men enrolled in specified branches of the general education course.

in which these ideas were presented. The scores of the last essay were then compared with the scores of the previous products of the same kind. The results are shown in Table V under the heading "Content or Substance Tests." It is not assumed that these figures, as well as those of the judgment tests, measure absolutely what they are intended to measure. The scores representing idea-

values, for example, are somewhat arbitrary. However, in the absence of anything better, they render a service in so far as they permit a comparison which reveals a decided increase in the power of attention as well as the power to grasp, retain, and express ideas of a rather involved and complex character.

In other words, while 38.3 per cent of the total number of men made a score of 50 or less in their first essays, only 6.6 per cent of the same men made a score of 50 or less in their last essays. Again, whereas, only 27.6 per cent of the total number made a score of more than 70 in the first attempt, 79.4 per cent of the same men

TABLE V
PERCENTAGE DISTRIBUTION OF SCORES OF 661 MEN ON CONTENT AND JUDGMENT
TESTS AT THE BEGINNING AND AT THE END OF THE GENERAL-EDUCATION
COURSE

CONTENT OR SUBSTANCE TESTS			JUDGMENT TESTS		
Idea-Values	First Essay	Last Essay	Percentage of Correct Choices	Test A	Test B
10.....	1.8	.2	22.....	3.3	.....
20.....	6.5	1.0	32.....	10.4	4.0
30.....	4.9	2.0	42.....	21.7	6.4
40.....	8.8	1.0	52.....	24.5	14.5
50.....	16.3	2.4	62.....	23.2	19.9
60.....	15.8	5.2	72.....	8.5	25.7
70.....	18.1	8.3	82.....	7.0	19.5
80.....	22.7	25.8	92.....	1.2	9.9
90.....	4.9	40.1			
100.....	.....	13.5			

made a score of more than 70 in their last essays. In comparing the score of the last essay of each student with the records of his previous essays it was found that the following individual progress was in evidence: 44.3 per cent of the men improved their first score by 15 per cent or less; 22.2 per cent by 15 to 25 per cent; 28.1 per cent by 25 to 50 per cent; and 5 per cent by 50 to 75 per cent.

Not less gratifying and instructive are the results of a group of tests which attempted to measure progress in the development of social attitudes and personal judgment, a special objective of the department of general education. Here again, no standardized

tests were available which might serve as a criterion, and no comparison with public-school grades was possible. After a great deal of experimenting, Judgment Tests A and B were developed and adopted for that purpose. Both tests consist of ten questions of civic importance, each question being accompanied by a number of possible answers. From these possible answers, the student was directed to make a first and a second choice in response to each question. The problems of the basic course in citizenship furnished the material for the questions. It was assumed that each choice would represent not only a judgment but also a social attitude. Test A was given during the second week of instruction, and Test B during the last week of the school term. The following example will suffice to indicate the character of the tests.

PROBLEM R OF JUDGMENT TEST B

Question: What is the real function of liberty in a democracy?

Answers: 1. To guarantee the right to do exactly as one pleases.

2. To guarantee the right to go anywhere one wishes.

3. It offers an opportunity to do whatever one pleases so long as he does not prevent anyone else from doing the same.

4. It offers an opportunity to do whatever one pleases so long as he does not interfere with the opportunity of others to enjoy equal comfort, peace, health, and happiness.

5. It offers an opportunity to do whatever one pleases so long as nobody objects.

6. It offers an opportunity for complete self-development in order to render the best service to society and get the most out of life.

7. It gives a man the right to eat without working, to consume without producing, if he so chooses, or can afford to do so.

The data of Table V permit comparison of the results of these tests. From these records it is seen that although 35.4 per cent of all men had not more than 42 per cent of correct choices to their credit as a result of Test A, at the end of the school term only 10.4 per cent of the same group of men scored below 42 per cent; and whereas only 16.7 per cent of the men had 72 per cent or more correct answers to their credit in Test A, at the end of the year 53.5 per cent of the men made a score of 72 per cent and more; 9.9 per cent of the 53.5 per cent scored as high as 92 per cent.

By comparing the results of Test A with the results of Test B, it was found that 37.4 per cent of the total number of men improved their first scores up to 16 per cent; furthermore, 16.8 per cent of the total registered an improvement up to 24 per cent; 21.9 per cent improved their first scores up to 48 per cent; and 3 per cent even as high as 68 per cent. However, 20.9 per cent of all men, on account of indifference or lack of native ability, or in consequence of high records previously obtained, recorded no improvement over the first percentage of correct choices.

These results and all other results obtained during the school year 1920-21 assume added value if one takes into consideration the fact that military duties after school hours did not leave time for home study or any work outside the classrooms, and that, with the exception of the daily problem sheets which furnished supplementary reading for the discussions, no textbooks were in use.

In compliance with the provisions of the new appropriation bill for the fiscal year 1921-22, the War Department is obliged to eliminate practically all professionally trained instructing and supervising personnel. For the present at least, all instruction is to be carried on by enlisted men, men whose educational history, mental make-up, and professional skill cannot be any better than that analyzed in the first part of this article. A comparatively expensive, but unusually successful experiment, full of promise and social significance for the nation and for the army, from the standpoint of efficiency and democratization, is in danger of being reduced to a mere farce after it has proved its worth.

However, whatever Congress or the War Department may do, the Camp Grant experiment has undoubtedly demonstrated that courses such as the basic course in citizenship and similar methods in operation under more advantageous conditions than those which the army could provide, are bound to produce even more striking results. If introduced into our high schools and colleges, such courses and methods would prove to be intensely stimulating and produce, what our schools are frequently accused of not producing, a new social consciousness, coupled with civic responsibility and reflective types of mind.